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ABSTRACT

The effects of short-term consciousness-raising instruction on the sexist attitudes of preservice teachers toward women was examined. To test the ability of teacher education institutions to lessen the level of sexist attitudes, 70 students were divided into three groups, a control group and two treatment groups. Each group was pretested and posttested for societal and educational sexist attitudes. A statistically significant difference in the posttest levels of educational sexist attitudes between the group receiving sensitivity instruction and the treatment groups was found. (Author/JD)

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The Effects of Instruction on the Sexist Attitudes of Pre-Service Teachers

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Abstract

This study was designed to determine the effects of short term consciousness-raising instructional approaches on the societal and educational sexist attitudes of preservice teachers. The literature highlighted the presence and effects of prejudicial attitudes toward women; the female teacher was shown to be both a victim and an instrument of sexism. To test the ability of teacher education institutions to lessen the level of sexist attitudes, 70 students were divided into three groups, a control group and two treatment groups. Each group was pretested and posttested for societal and educational sexist attitudes. A statistically significant difference in the posttest levels of educational sexist attitudes between the control and treatment groups was found.

The Effects of Instruction on the Sexist Attitudes of Pre-Service Teachers

The existence of prejudice within a society seriously limits the potential of that society's productivity. Our society suffers from prejudices of various kinds. Among the most harmful is sexism (Flexner, 1959; Rosaldo & Lamphere, 1974).

Werner defines sexism as "a doctrine or feeling of sexual differences or antagonisms especially with reference to supposed sexual superiority, inferiority or purity; sexual prejudice, hatred or discrimination" (1973, p. 8). Attitudes and actions that stem from this feeling are termed "sexist." Most often sexism is a bias against females by members of both sexes; it will be used in this connotation throughout this study.

Sexist attitudes and actions have curtailed the ability of half the world's population to resolve problems faced by the whole of humankind. In the United States, school systems have been typical of society in general and have helped perpetuate the effects of sexism. (Frazier & Sadker, 1973). As a component of these school systems, teachers have been both victims and instruments of sex bias. Since the teacher's attitudes directly influence the attitudes and actions of students, a lessoning of sexist teacher attitudes would benefit the teacher, the student and, ultimately, society. But <u>can</u> these views be changed? This study has been designed to answer this question.

Literature, research, expert opinion and simple logic support the five inter-related assumptions listed below:

1. Sexism exists in society. (Bell, 1973; Mueller, 1954; Rosaldo, 1974; Bach, 1974; Frazier & Sadker, 1973; Flexner, 1954; Rosenberg & Sutton-Smith, 1972; Chaboud, 1970; USDL, Women Wakers Today, 1976).
2. Society would benefit from a decrease in sexism. (Presidents's Comm. on the Status of Women, 1963; U.S. Dept. of Labor, Continuing Education Programs and Services for Women, 1971; Donahue, 1975; Toffler, 1974; Kreps, 1976).
3. Sexism in our society is reflected in and perpetuated by the educational system. (Martinez, 1974; Stacey, Bereaud & Daniels, 1974; Dunkle, 1975; Dunkle & Sandler, 1974; Hoyt, 1974; Saario, Jacklin & Tittle, 1973; Weckstein, 1974; Tibbets, 1975; Pirsig, 1973; Trecker, 1973; Stecker, McCarthy & Tittle, 1974; Tittle, 1974; Meyer, 1972; Mueller, 1954; Spitzer, 1974; Burstyn & Corrigan, 1975; Dwyer, 1974; Pettinger, 1971; Tobias, 1976).
4. Reduction of the level of sexism in schools would lead to a less sexist society. (Nelson & Nelson, 1974; Weckstein, 1974; Hoyt, 1974; U.S. Dept. of Labor, Manpower Report, 1975).
5. Teachers contribute to and reinforce sexism in the schools. (Bonn, 1974; Sadker & Sadker, 1974; Feshbeck, 1972; Friedman & Bowers, 1971; Madsen, 1968: reported in Lee & Gropper, 1974; Nelson & Nelson, 1974; Woolfold, 1974).

These five statements logically lead to the further assumption that since teacher-sexism contributes to sexism in the schools, then teacher-sexism should be diminished. How is this to be achieved? There are many possible untested answers. It was the purpose of this study to test the effectiveness of one such possible answer; i.e., that certain types of instructional materials and procedures may be used to diminish sex-biased attitudes.

The capability of changing sexist attitudes through instructional materials and strategies has been treated by a relatively small number of educators. But the fact that behavior and attitudes can be changed by instructional means is the underlying principle of all education. Teacher education programs by their very existence presume that the actions of the future teacher can be shaped into a desirable pattern.

Very few teacher preparation institutions have formally considered sexism. Yet, if the situation is to improve, "teacher education programs must respond to the issue of sexism and, in so doing, serve as a catalyst for significant and important social reform." (Sadker & Sadker, 1974, p. 9) This study tested the ability of certain instructional materials to function as catalytic agents within these programs.

When the model presented by the Emma Willard Task Force (Pirsig, 1973) is coupled with the theoretical recommendations of Sadker and Sadker, Hahn and Weber, and Weber, a framework for curriculum development emerges. Sadker and Sadker (1974) identify four competency classifications for a teacher education program on sexism. Weber and Weber (1973) present eight competencies necessary for non-sexist teacher behavior and Hahn (1973) presents four steps in the mental process for the implementation of a new ideal.

From these studies emerges the following criteria for instructional materials that would have a high probability of successfully altering sexist views:

1. The materials should create an awareness of the problem through the presentation of information.
2. The materials should clarify the effects of sexism on the individual's life and highlight the subject's own contribution to sexism.
3. The materials should help the individual decide to alter classroom behavior.
4. The decision to alter behavior should be reinforced through success.

This project directly incorporated 1, 2, and 3 in the instructional materials used as treatments for Groups B and C. The acquisition of 4 must be left until a later date.

The instructional materials selected as the basis of the Equality Awareness Lesson and Unit were designed to create an awareness of two aspects of sexism: sexual stereotyping in society or societal sexism and sexual prejudices inherent within certain classroom materials and teacher actions termed educational sexism. Materials were selected from those developed by Terry Masters under the federally funded training program for Women's Equity in Education. They were used by members of six Texas Teacher Centers for School District inservice programs during the spring and summer of 1977.

Method

Participants

Participants in this study were undergraduate students enrolled in introductory education courses during the Spring of 1977 in a University in Houston, Texas. The students ranged in age from 19 to 52 but the majority fell into the 19-22 age group. Of the 70 participants, 67 were women, 3 men.

Design

The participants were divided into three groups A, B, and C composed of 20, 24, and 26 students, respectively. Half of each group were first education course students and half were second education course students. Six course sections were used in the total sample. This involved five instructors, who cooperated in the administration and collection of the pre and post tests. All treatment sessions were conducted by the investigator.

Treatment Group Participation

Group A, the control group, was pretested and posttested only; Group B was pretested, participated in an Equality Awareness Lesson and was posttested; Group C was pretested, participated in an Equality Awareness Unit and was posttested. The combined posttests were geared to consume approximately one class hour each; the Equality Awareness Lesson about two and one half hours; and the Equality Awareness Unit, five hours. Thus, Group A participated in the project a total of two hours while Group B spent four and one half hours and Group C seven hours. Table 1 gives a comparison view of this grouping system.

Insert Table 1 here

Treatments

Two types of treatments were used in this study: The Equality Awareness Lesson and the Equality Awareness Unit. The nature of the activities of the Equality Awareness Lesson and the Equality Awareness Unit were similar. However, the Unit was allocated twice as much treatment time as was the Lesson. Although content-wise the treatments were alike, the amount of dicussion and personal sharing differed. Table 2 enumerates, in the order of use, the six activities included in the treatments. Time allowances for the Lesson and the Unit are indicated to the right of each title.

Insert Table 2 here

Measures

The effectiveness of the treatment activities was measured by two instruments: the Werner Sexist Attitude Scale employed to determine the level of general societal sexist attitudes and the Informal Teacher Sexist Attitude Survey, developed, implemented and validated to measure the scope of the educational sexist attitudes of the preservice teachers in this study.

Werner Sexist Attitude Scale (WSAS). The Werner Sexist Attitude Scale (WSAS) was developed and validated as part of the dissertation work of

Marie Einhorn Werner done in 1973 at Teachers College, Columbia University. The WSAS is composed of sixteen items with five or six items dealing with each of three distinct factors incorporated in the label of sexism: (1) sociopsychological, (2) economic-occuptional and (3) familial-moral. The content validity of specific items was evaluated by eight experts in three scientific fields and feminist authors. To establish construct validity the "known groups" techniques was employed. Test-retest estimates of reliability were reported as .96; split-half .91. Werner established a number of correlations between scores obtained on this measure of sexism and other attitude scales and factors which may be related to sexist attitudes.

Informal Teacher Sexist Attitude Survey (ITSAS). Since no validated instrument for the measurement of sexist attitudes in educational settings was readily available, a test to measure this construct was designed as part of this study. The title given to this instrument was the Informal Teacher Sexist Attitude Survey or ITSAS. In order to free the ITSAS from the influence of teacher expectations, the test items were in vignette form since this was similar to other work done in the education courses in which the subjects were enrolled.

In December of 1976, a pilot study was conducted to determine the ability of the vignette form of question to evoke responses that could indicate levels of educational sexist attitudes. It was concluded that this form could be used to evaluate educational sexist attitudes. The items could sufficiently disguise the sexist elements of the situations without hiding them altogether. The scoring system suggested by the pilot study

indicated no more than a five point spread could be calculated and this was based on a 1 to 5 scale for ease of calulation, with 3 being neutral.

The ITSAS was designed to measure attitudes within three main categories of educational sexist stereotyping, i.e. management, content and language. Each category contained two different types of situations. Two alternate forms of this test were developed with items in each category and of each type. The final categories, situation types and definitions employed for the design of test items were:

M: Management Stereotyping - the presence of sexist stereotypes in the classroom management techniques used by the teacher or person in authority. This includes the physical movement of students as well as the solutions to discipline problems. The two types of situations posed in this category were:

A. Problems that are precipitated by a stereotypical arrangement of students within the class framework: e.g. lining up students according to sex.

B. Discipline problems that include an overtly sexist action or statement by a student; not directly stemming from the actions of the teacher: e.g. a student saying another student "cries like a girl."

C: Content Stereotyping - the acceptance of stereotypes in choices of instructional content and decisions on the appropriatensess of the sex of the person chosen to fill certain roles in regard to content. Situations posed in this category were:

A. Tasks of deciding whom to include in historical and social groups: e.g. who would be included under the title "Important Americans."

B. Problems that arise from presuming that students will select content according to sexist stereotypes: e.g. planning instruction around boys but not girls doing mechancial tasks.

L: Language Stereotyping - the acceptance of sexist stereotypes in the covert wording used in either written or oral statements or the acceptance of these in the statements of others. This form of stereotyping is embodied in the choice of the words employed and not necessarily in the primary concept these words were meant to convey. The two types of situations posed in this category were:

A. Reactions to the presence of stereotypical references in the written work of students: e.g. referring to all people as men or mankind or employing phrases like "important persons and their wives."

B. Tasks which call for designing instruction around tasks which contain sexist stereotypes: e.g. "My forefathers were America in the making." (Lieberman, 1957, p.448)

The items used in the ITSAS were taken directly from the search of the literature. Therefore, they would seem to possess face content validity. In addition expert opinions were used to test the construct validity. Concurrent validity of the ITSAS with the WSAS was denoted by use of a Pearson product-moment correlation; $r = +.27$. Although this does not indicate a strong relationship between the two tests, it does denote one that is positive

and direct. The low level of the coefficient, in itself, does not signal poor concurrent validity, since both tests were not designed to measure exactly the same construct.

Two forms of the ITSAS were developed and used; one half of the pretest and posttest was Form I and one half of the pretest and posttest was Form II. An analysis of the pretest data of Form I showed a mean of 20.0. The mean for Form II was 18.37. A Pearson product-moment correlation between Form I and Form II yielded a value of +.21. This is termed the coefficient of equivalence or equivalent-form or alternate-form reliability (Ten Brink, 1974, p. 38). While a +.21 measure of reliability is not high, it does indicate a positive relationship between Form I and Form II of the ITSAS. However, the low level of this coefficient necessitates the cautious analysis of effects indicated by this test data.

When the test-retest reliability was calculated for the ITSAS, it was computed to be +.37. This indicated a low to medium postive correlation between the result of Pretest B and Posttest B for control Group A. Since the ITSAS was an initial form of a survey of otherwise untested constructs, this was not deemed unacceptable, though a higher level of reliability was certainly more desireable.

Results

The results of the pre and post treatment administrations of the WSAS and ITSAS were subjected to the following procedures:

1. Cellular arrangement of raw data.
2. Determination of intergroup homogeneity of variances.

3. Upon confirmation of homogeneity of variances, a two-way analysis of Variances for repeated measures.
4. Scheffe' Method of multiple comparison for significant main effect indicated by the Analysis of Variance.

Analysis of WSAS Data

The data gathered by the WSAS was arranged and the means and standard deviations were computed. These are reported in Table 3; the means are presented pictorially in Figure 1. In order to assess the homogeneity of variances between pretest results of Groups A, B, and C, Levene's test for the homogeneity of variances was employed. A summary of the calculations for this test can be found in Table 4. The F-ratio value obtained was .724. This indicated no significant differences in the variances of Groups A, B, and C at the .05 levels of significance. Thus, the homogeneity of variances was assumed and the Analysis of Variance procedure was instituted.

Insert Table 3, Figure 1, Table 4 here

The results of the pre-treatement and post-treatment administrations of the WSAS were analyzed by means of a two-way Analysis of Variance for unequal n's and repeated measures. The mathematical calculations and findings of this analysis may be found on Table 5. At the preset level of statistical significance, $p < .05$, there were no significant main effects for the Treatment (T), Pre-Post (P) or Interaction factors. The results of the two-way ANOVA of the WSAS data lead to the conclusion that there was no statistically significant difference in the level of societal sexist

attitudes before and after treatment.

Insert Table 5 here

Discussion of WSAS Results

After data from the pre-treatment administration of the WSAS were subjected to Levene's test for homogeneity of variances; it was shown that the initially measured sexist attitudes of preservice teachers within the three treatment groups possessed homogeneity of variances. The scores within the groups themsleves were distributed about the normal curve. This indicated similar distribution of pretest findings and societal sexist attitudes among the three treatment groups of preservice teachers.

The outcome of the two-way Analysis of Variance for unequal n's and repeated measures which was performed on the WSAS data denoted a similarity of pretest attitudes and posttest attitudes among the three treatment groups. This was evidenced when no main effect for the treatment factor was indicated. The lack of a Pre-Post main effect spoke for the similarity of preservice teacher's societal sexist attitudes before and after the Equality Awareness Lesson or Unit. This suggested no significant change in societal sexist attitudes when measured over a four week period. The literature search confirms this finding when it revealed that broadly based attitudes are difficult to change with short term treatments.

Analysis of ITSAS Data

The means and standard deviations of the ITSAS scores are depicted in Table 6 and Figure 2. Levene's test for homogeneity of variances was used

to test the variances of Groups A, B, and C. Analysis of the pretest data, as reported in Table 7, produced an F-ratio of .085. There was no indication of significant differences at the .05 level of probability which had a critical value of 3.15. Since the normality of the distribution of variances for Groups A, B, and C's ITSAS scores was indicated, an Analysis of Variance was conducted.

Insert Table 6, Figure 2, Table 7 here

The data furnished by the pretest and posttest ITSAS were subjected to a two-way Analysis of Variance for unequal n's and repeated measures. A summary of the computations for this process are contained in Table 8. Since the .05 level of significance was used, the Analysis of Variance indicated the existence of significant main effects for the Treatement and Pre-Post factors. These results denoted the presence of statistically significant differences in the means of the treatment rows and the pre-post columns, but did not suggest the placement or nature of these differences. While an Analysis of Variance can indicate the presence of main effects a further comparison must be performed to denote which contrasts are significantly different. The Scheffé Method of Multiple Comparisons was performed for the contrasts indicated by the two significant main effects denoted by the Analysis of Variance.

The multiple comparison procedure revealed the presence of four statistically significant contrasts. These are denoted on Table 9 and include the

following:

Group B Pretest ---- Group B Posttest

Group C Pretest ---- Group C Posttest

Group A Posttest --- Group B Posttest

Group A Posttest --- Group C Posttest

In the remainder of the contrasts examined, no statistically significant differences were indicated.

Insert Table 8 & 9 here

Discussion of ITSAS Results

The lack of statistically significant differences between the pretest and posttest results of Group A, A_1, and A_2, reinforces its function as the control group. The lack of statistically significant differences among the comparisons of the three pretest, A_1-B_1, A_1-C_1, B_1-C_1, indicates their similarity at the initial stage of the investigation. These results point to a desirable state of pretest and control group similarity.

The differences deemed significant by the Scheffé Multiple Comparison point to the effectiveness of the treatments in altering the educational sexist attitudes of preservice teachers. The differences evidenced between B_1 and B_2 and C_1 and C_2, indicate the presence of an intervening variable or treatment. The differences shown between A_2 and B_2, and A_2 and C_2 signify this intervening variable existed within Group B and Group C but not Group A.

Caution must be advised in the interpretation of the data gathered with the ITSAS, since the test had such a low test-retest reliablity coefficent. Some of this caution may be offset by the fa- that the Scheffé Method of

Multiple Comparisons is usually considered the most conservative measure of comparisons in popular use.

The result of the ANOVA and Scheffé Method of Multiple Comparisons leads to the cautious assumption that the treatment did effect a change in the educational sexist attitudes of preservice teachers. However, the length of treatment, whether 2½ or 5 hours seemed to show no additional significant difference.

General Conclusions

When the conclusions drawn from the WSAS data, the ITSAS data and the review of the literature are combined, they lead to four general conclusions.

1. Teacher education institutions can and should initiate a program that would effectively lessen the level of sexism in educational situations.
2. Short term instructional treatments that would significantly lower the level of educational sexism of preservice teachers can be incorporated into teacher education programs.
3. To be effective, instructional appro ches should be situation specific, include consciousness raising activities and need not last more than 2½ hours.
4. Although short term instructional approaches can effectively lessen the level of educational sexism, there is no evidence that they can alter general societal sexist attitudes.

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Table 1

Test, Treatments and Time Allotments According to Groups

Group	Pre-Test B (45 min.)	Pre-Test A (15 min.)	Equality Awareness Lesson (2½ hrs.)	Equality Awareness Unit (5 hrs.)	Post-Test A (15 min.)	Post-Test B (45 min.)
A	X	X			X	X
B	X	X	X		X	X
C	X	X		X	X	X

Table 2

Treatment Activity Titles, Descriptions and Time Allowances for the Equality Awareness Lesson and Unit

Activity Number	Activity Title and Description	Equality Awareness	
		Lesson Group B (time in minutes)	Unit Group C
1	Three Things (Get-Acquainted Activity)	15	30
2	"Anything They Want To Be" (16 mm film and discussion)	15	30
3	"I is for Important" (16 mm film and discussion)	30	45
4	Media Survey (Analysis of sexism in textbooks, magazines, and newspapers)	45	90
5	Continuum ("Agree-Disagree" decision-making statements)	15	45
6	Healthy Adult (Comparason of views on ideal male, female and healthy adult)	30	60
	Total Time	2 1/2 hrs.	5 hrs.

Table 3

Group Means and Standard Deviations [a] of Test Scores Obtained on the WSAS

Factor T (Treatment)	Factor P (Pre-Post) Pre-Test Means		Post-Test Means		Row Means	
$A_{n=20}$	32.80	(6.31)	31.70	(5.74)	32.25	(5.98)
$B_{n=24}$	35.50	(6.81)	35.63	(6.06)	35.56	(6.38)
$C_{n=26}$	33.50	(5.71)	33.12	(4.67)	33.31	(5.17)
Column $Means_{n=70}$	33.99	(6.29)	33.57	(5.64)	33.78[b]	(5.95)

[a]Numerals in parentheses indicate standard deviations.

[b]This is the Grand Mean.

Figure 1

Mean of Group Scores on the WSAS

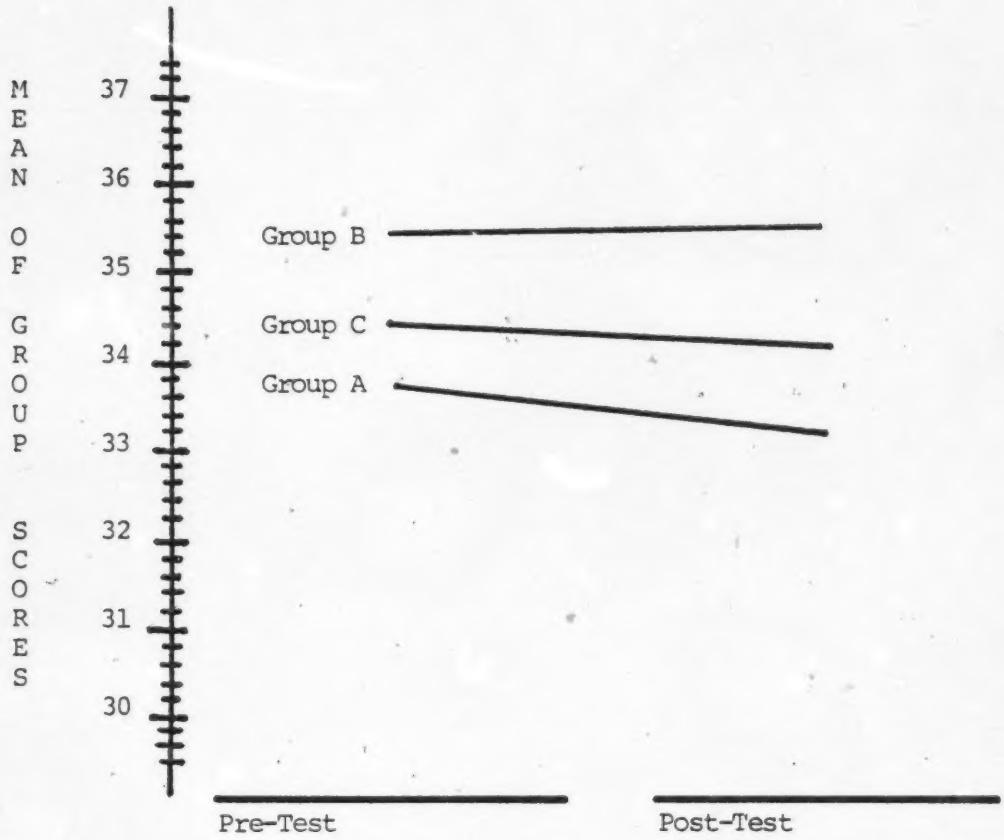

Table 4

Summary of Levene's Test for Homogeneity of Variances

of Group Pre-Test Scores Obtained on the WSAS

Source	df	SS	MS	F
Between Treatments	2	21.85	10.92	.723
Within Treatments	67	1011.4	15.10	
Total	71			

Note. Critical Value at .05 level = 3.15

Table 5

Summary of Analysis of Variance for WSAS Data

Source	SS	df	MS	F	P
Treatment (T)	257.75	2	128.88	3.71	$p<.10$
Pre-Post (P)	6.00	1	6.00	0.18	$p>.50$
Interaction (TXP)	8.20	2	4.10	0.12	$p>.50$
Within	4656.18	134	34. 75		
Total		139			

Figure 2

Mean of Group Scores on the ITSAS

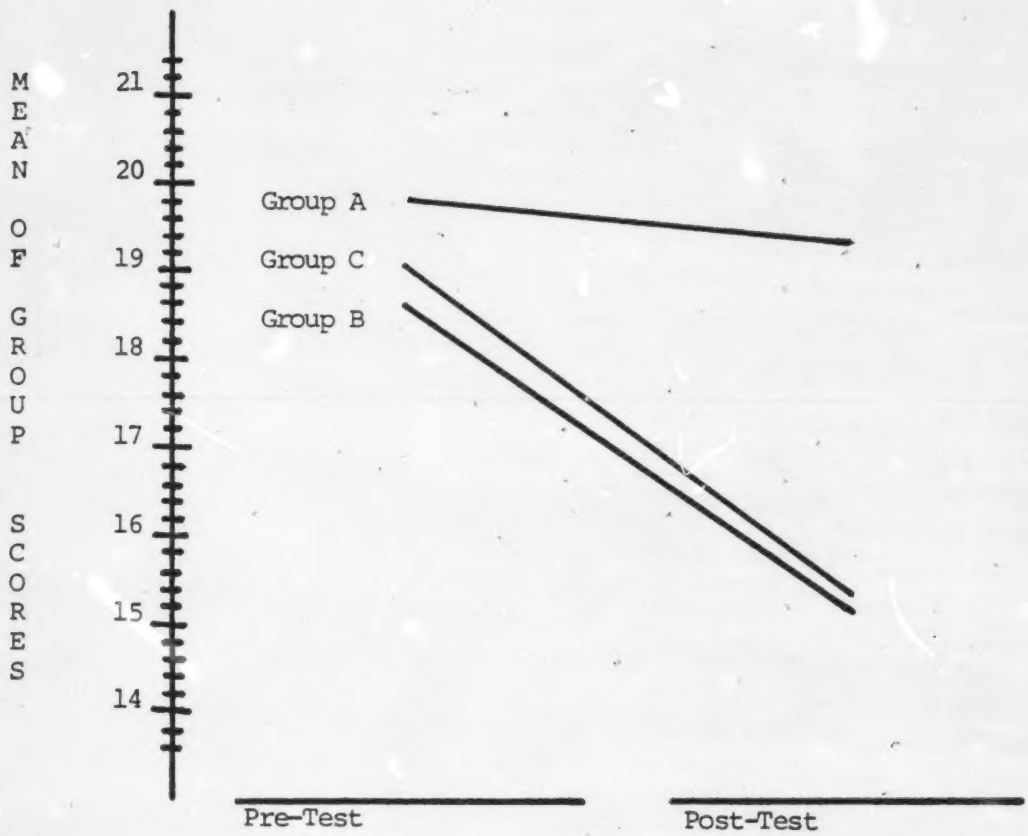

Table 6

Group Means and Standard Deviations [a] of Test Scores

Obtained on the ITSAS

Factor T (Treatment)	Factor P (Pre-Post) Pre-Test Means		Post-Test Means		Row Means	
$A_{n=20}$	19.85	(2.94)	19.40	(2.64)	19.63	(2.77)
$B_{n=24}$	18.71	(3.85)	15.42	(4.37)	17.06	(4.40)
$C_{n=26}$	19.12	(3.01)	15.50	(3.08)	17.31	(3.52)
Column $Means_{n=70}$	19.19	(3.29)	16.59	(3.87)	17.89[b]	(3.81)

[a]Numerals in parentheses indicate standard deviations.

[b]This is the Grand Mean.

Table 7

Summary of Levene's Test for Homogeneity of Variances of Group Pre-Test Scores Obtained on the ITSAS

Source	df	SS	MS	F
Between Treatments	2	0.7	0.35	.085
Within Treatments	67	274.9	4.10	
Total	71			

Note. Critical Value at .05 level = 3.15.

Table 8

Summary of Analysis of Variance for ITSAS Data

Source	SS	df	MS	F	P
Treatment (T)	170.91	2	85.45	7.43	$p<.025$
Pre-Post (P)	236.60	1	236.60	20.57	$p<.001$
Interaction (TXP)	65.74	2	32.87	2.86	$p<.10$
Within	1540.92	134	11.50		
Total	2014.17	139			

Table 9

Summary of Scheffe Method of Multiple Comparisons for ITSAS Data

Contrast[a]	$\hat{\psi}$	$\hat{\alpha}\hat{\psi}^2$	$\hat{\alpha}\hat{\psi}$	Ratio
Factor P				
A_1 (19.85) - A_2 (19.40)	0.45	1.1500	1.072	.4198
B_1 (18.71) - B_2 (15.42)	3.29	.9584	.979	3.3606*
C_1 (19.12) - C_2 (15.50)	3.62	.8846	.941	3.8470*
Factor T				
A_1 (19.85) - B_1 (18.71)	1.14	1.0542	1.027	1.1100
A_1 (19.85) - C_1 (19.12)	0.73	1.0173	1.009	.7235
B_1 (18.71) - C_1 (19.12)	-0.41	.9215	.960	.4271
A_2 (19.40) - B_2 (15.42)	3.98	1.0542	1.027	3.8754*
A_2 (19.40) - C_2 (15.50)	3.90	1.0173	1.009	3.8652*
B_2 (15.42) - C_2 (15.50)	0.08	- .9215	.960	.0833

Note. Critical Value for Ratio in Factor P = 2.51.

Critical Value for Ratio in Factor T = 2.02.

[a]A, B or C indicates treatment group.

Subscript 1 indicates means of pre-test.

Subscript 2 indicates means of post-test.

*$p < .05$